ATTACHMENT A

Preliminary DRAFT Basin Plan Amendment
TMDL and Implementation Framework and Time Schedule

This Attachment is a preliminary proposal for the TMDL and adaptive Framework. Board staff drafted this for review and modification by the Framework stakeholder group that is being convened for the first part of the bifurcated TMDL.

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Background

To comply with Federal and State regulations, the Basin Plan amendment (BPA) must contain new fish tissue objectives and beneficial uses, methylmercury load and waste load allocations, a margin of safety, and an adaptive Implementation Framework that outlines the steps that will be taken to implement the objectives and allocations. This document provides a possible outline for the BPA and Implementation Framework components the Board will consider in October 2009 and some key questions for stakeholders to consider. Board staff developed this outline only to help get the detailed stakeholder discussion started. This outline is not intended to limit the possibilities of the Framework.

The Basin Plan amendment will contain the following:

1. New fish tissue objectives for trophic level 3 and 4 fish and small fish, adding COMM (commercial and sport fishing) as a beneficial use for the Delta, and a margin of safety.
2. Methylmercury load allocation tables:
   - Irrigated agriculture (group allocation based on Delta subarea)
   - Managed wetlands (group allocation based on Delta subarea)
   - Open water (allocation based on Delta subarea)
   - Tributary watersheds (allocations for individual tributaries)
3. Methylmercury waste load allocation tables:
   - Municipal and industrial wastewater facilities (individual allocations)
   - Urban stormwater agencies (individual allocations)
4. Compliance date: Allocations for dischargers in the Delta and Yolo Bypass shall be met no later than 2030, unless the Regional Water Board amends the allocations and implementation provisions at the end of Phase 1.
5. Narrative interim limits and compliance schedules and requirements for mercury minimization programs for NPDES dischargers.
6. Delta Mercury Program Phase 1 Implementation Framework and time schedule

After the Board adopts the TMDL and Framework, the stakeholder group would begin to develop the detailed adaptive Implementation Plan, starting in October 2009.

The Implementation Framework (Framework) should include sufficient direction to ensure that a comprehensive, scientifically defensible, implementation program can be developed in 8 years. It should clearly describe the general information that needs to be collected (e.g., methylmercury and inorganic mercury reduction studies and development of control plans) and describe the process that will be implemented to gather and evaluate the information. The Phase 1 Implementation Plan (developed from guidance contained in the Framework) should include: specific study goals and priorities that expand upon the study objectives outlined in Section B, below; descriptions of the proposed studies and how the proposed studies address the study goals and Implementation Plan Elements; identification of which specific stakeholders will manage each study; and funding plans for the studies.

Definitions are provided first to define the various terms and elements of the Framework.

A. Definitions Used in the Implementation Framework

1. **Delta Mercury Control Program Phase 1:** Time period after Board adoption of Delta Mercury Control Program, up until the time when the Board reconsiders the entire Delta Mercury Control Program. Phase 1 contains the methylmercury study period and interim requirements for specific dischargers and sources described below. Phase 1 will last approximately 8 years.
2. **Delta Mercury Control Program Phase 2:** Time period after Board re-evaluates the TMDL and control program and re-adopts a new control program. Prior to beginning Phase 2, the Board will reconsider the TMDL, allocations, and compliance time schedules, and revise the implementation plan directing dischargers to implement mercury and/or methylmercury controls based on the Phase 1 study results.
3. **Methylmercury source categories:** Methylmercury and mercury source categories and activities subject to this regulation include: Irrigated agricultural lands and managed wetlands, NPDES permitted facilities, Municipal Separate Storm Sewer Systems, dredging and dredge material disposal, the Cache Creek Settling Basin, and new flood conveyance, water management, and salinity control projects. Not all sources within each source category act as net sources of methylmercury. Entities that do not discharge methylmercury or do not act as a net source, and projects identified in Section I, are exempt from the methylmercury study requirements.
4. **Phase 1 Implementation Plan Elements**:
   a. Inorganic mercury load reductions to meet Region 2 allocation
   b. Methylmercury and inorganic mercury reduction studies focused on meeting allocations
   c. Methylmercury and inorganic mercury reduction actions [e.g., Cache Creek Settling Basin improvements and possibly other projects]
   d. Measures to reduce methylmercury exposure for people eating contaminated Delta fish
   e. Development of TMDLs for impaired waterways in the Delta's tributary watersheds
   f. Development of control plans for methylmercury and total mercury sources within and upstream of the Delta

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As part of the Framework development, stakeholders need to determine whether all of these elements will be addressed by the stakeholder group in one massive "Implementation Plan" or addressed by different entities in separate planning efforts.

5. **Phase 1 Implementation Framework**: Outlines general requirements for Phase 1, including:
   a. Phase 1 Implementation Plan Elements to be addressed by the Implementation Plan
   b. Phase 1 study objectives, minimum requirements, and options
   c. Expectations for Board staff and entities responsible for methylmercury sources
   d. Assurances for entities that participate in the Phase 1 Implementation Plan
   e. Phase 1 Implementation Plan development milestones, deliverables, and time schedule
   f. Implementation Plan milestones, deliverables, and time schedule
   g. Exempt projects and activities
   h. Cache Creek Settling Basin improvements schedule
   i. Mercury offset pilot project guidance
6. **Phase 1 Implementation Plan**: A "living" document developed by Stakeholders that expands upon the Phase 1 Implementation Framework by identifying specific requirements for studies and actions to address the Phase 1 Implementation Elements outlined above. The Implementation Plan will be developed by the Stakeholders after October 2009.
7. **Phase 1 Methylmercury Study Work Plan(s)**: Specific plans developed by the Stakeholders to evaluate controls for the various methylmercury sources.
8. **Stakeholder**: A stakeholder is a group or individual who has the responsibility for implementing a management action, is affected by the action, or has the ability to aid or prevent its implementation. Stakeholders include, but are not limited to, the following: land owners (e.g., irrigated agriculture and wetlands); communities affected by elevated fish mercury levels; land managers where wildlife on those lands are consuming fish with elevated mercury levels; NPDES facilities, urban storm water agencies, and local, state and federal agencies whose water and/or land management activities may cause or contribute to inorganic mercury or methylmercury discharges. Additionally, agencies such as the State Lands Commission, USEPA, and USBLM are stakeholders that will have a role in addressing a portion of the allocations. Stakeholder group(s) that form should include representatives from each of the above listed groups.
9. **Stakeholder Charter:** Defines stakeholder roles and responsibilities for developing the Phase 1 Implementation Plan.
10. **Technical Advisory Committee (TAC)**: A committee of independent, nationally or internationally recognized mercury experts that will review Phase 1 study designs, evaluate results, propose follow-up experiments, and make recommendations on whether sufficient information is available to implement methylmercury management practices. The TAC will be convened to review the Phase 1 Implementation Plan, study work plans, and study results. The TAC will be convened by the Board as advised on by stakeholders.

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B. Phase 1 Studies' Objectives and Options:

1. Studies' Objectives:
   a. Develop and evaluate management practices and control methods to reduce methylmercury from various sources, including but not limited to managed wetlands, irrigated agriculture, urban runoff, wastewater treatment plants, and within-channel sediments. Studies should evaluate the effectiveness, costs, and potential environmental impacts of the possible methylmercury management and control measures.
   b. Identification of methylmercury sources that can be feasibly controlled by addressing methylmercury, total mercury, or both.
   c. Develop watershed- and/or source-specific implementation plans that identify methylmercury and inorganic mercury source reductions to meet allocations.

   Identification of total mercury and methylmercury sources and development of methylmercury management practices and controls should build on the work already completed by CalFed, the Regional Water Board, and other research entities.

2. Study Options:
   a. Management practice development may involve identification of the factors affecting methylmercury production and fate in different types of sources within a source category (e.g., managed wetlands with different design and maintenance methods) and testing of possible control practices.
   b. Dischargers may work individually or may collaborate with other entities to develop and participate in comprehensive studies.
   c. The comprehensive studies may encompass multiple Delta subareas and tributary watersheds and may include multiple source categories.

C. Expectations of Board Staff:

1. Complete upstream TMDLs and develop control plans for methylmercury and total mercury sources
2. Work with State and Federal governments in developing the implementation plan for the instream production component both within the Delta and in tributaries
3. Complete watershed evaluations to identify and prioritize legacy mercury reduction activities
4. Assemble a technical advisory committee
5. Coordinate with stakeholders on development and implementation of study plans
6. Provide timely review of stakeholder plans and reports
7. Provide frequent reports to the Board
8. Work with stakeholders to develop a Phase 2 mercury offset program

D. Expectations of Stakeholders:

Assurances that the stakeholders will develop and implement a Phase 1 Implementation Plan:

Assurances that some projects are completed to reduce human exposure to methylmercury:

Should there be a list of which stakeholders are expected to participate in the Phase 1 Implementation Plan?

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E. Stakeholder Assurances:

Assurances that the Board recognizes study efforts or gives 'credit' to dischargers that meet performance-based Phase 1 tasks and expectations:

F. General Assurances:

1. The Board shall reconsider the TMDL, allocations, compliance time schedule, and implementation plan in about 8 years and will modify the Basin Plan as necessary based on new information.
2. Dischargers are not required to implement methylmercury reduction projects during Phase 1.
3. Dischargers are not required to meet allocations until 2030. The Board may modify the compliance date at the end of Phase 1 based on the results of the Phase 1 studies. The Delta Mercury Control Program Phase 2 would contain implementation requirements, allocations, and a compliance time schedule. In the absence of the Phase 1 studies, the allocations and 2030 compliance date would not change.

G. Milestones, Deliverables, and Time Schedule – *Potential Actions and Time Schedule* –

Stakeholder Actions

Action	Deliverable	Due Date (time after BPA adoption by Regional Board)
Stakeholders convene a stakeholder group.	Letters of commitment for each stakeholder or stakeholder representative	6 months
Stakeholders develop charter that defines stakeholder roles and responsibilities.	Stakeholder Charter	9 months
Stakeholder group develops Phase 1 Implementation Plan to address Implementation Plan Elements for Executive Officer approval. Stakeholders may coordinate Implementation Plan development with staff and TAC.	Phase 1 Implementation Plan	12 months
Stakeholders submit detailed methylmercury study work plans and time schedules for TAC review and Executive Officer approval.	Methylmercury Study Work Plans	12 months after Implementation Plan is approved
Stakeholders initiate work plan activities.		3 months after work plans are approved
Mid-term reports due for Phase 1 activities.	Mid-term report	54 months
Final reports due for Phase 1 activities.	Final Report	84 months

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Board Staff Actions

Action	Deliverable	Due Date (time after BPA adoption by Regional Board)
Board staff initiates formation of external technical advisory committee (TAC) that will be charged with reviewing stakeholder work plans and reports	TAC formation plan	1 month
Board staff prepares plan for upstream TMDL development, including inorganic mercury and methylmercury source assessments	TMDL Development Plan and schedule	3 months
Board staff immediately begins development of upstream TMDLs		3 month
Board staff updates Central Valley Water Board on progress of stakeholder activities and staff activities	Progress reports to the Central Valley Water Board	Every 6 months
Board staff completes formation of TAC	Progress report to the Central Valley Water Board	16 months
Board staff completes upstream technical TMDLs and draft implementation framework	Staff completes technical TMDL reports and draft implementation framework for upstream watersheds	84 months
Board staff revises Delta mercury control program, including technical TMDL and Basin Plan amendment, based on the Phase 1 study results and other newly available scientific and technical information	Proposed Draft Basin Plan amendment for Delta and tributaries	96 months
Central Valley Water Board reconsiders Delta TMDL allocations and implementation plan, modifying the allocations, compliance dates, and implementation plan requirements as relevant	Board Hearing	96 months

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I. Exempt Projects and Activities

The following projects and activities are exempt from the methylmercury study requirements:
(This could include the list staff recently sent out to the stakeholders.)

J. Cache Creek Settling Basin

The following constitutes the plan and time schedule to evaluate options and initial activities to reduce mercury loading from the Cache Creek Settling Basin.
Milestones and schedule:

K. Mercury Offset Pilot Project Guidance and Credit Strategy

Could include offset guidance and credit strategy staff developed for dischargers (see Feb 2008 Basin Plan language) that want to conduct early offset pilot projects and accomplish early mercury reductions in their discharges.

L. Recommendations

It is recommended that proposed wetland projects consider the potential methylmercury enhancement from their projects and determine if there are any feasible control measures that could be incorporated into the projects in Phase 1.

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